CLAIMS

What is claimed is:

1. In an operating system that supports software handlers, a method for identifying a peripheral device detachably coupled to a computer system, said method comprising the steps of:

a) receiving an interrupt from said peripheral device, said peripheral device being coupled to a communications port of said computer system;

b) responsive to said interrupt, posting an interrupt notification message to alert a notification handler running on said computer system;

c) provided that said interrupt is indicative of a compliant peripheral class and said communications port is inactive, opening said communications port;

d) sending an inquiry to said peripheral device via said communications port;

e) monitoring to receive a response from said peripheral device via said communications port within a predetermined time period; and

f) provided that said response is received from said peripheral device within said predetermined time period, posting an identification notification message based on data in said response, wherein said data can be used to classify said peripheral device and wherein a software handler registered with said operating system can handle said identification notification message upon receipt thereof.

2. The method as recited in Claim 1 further comprising the step of posting a non-compliance notification message to trigger exception processing

on said computer system provided that said interrupt is not indicative of said compliant peripheral class.

3. The method as recited in Claim 1 further comprising the step of posting a port-in-use notification message to trigger further processing provided that said interrupt is indicative of said compliant peripheral class and said communications port is already open.

4. The method as recited in Claim 1 further comprising the step of posting a no-response notification message to trigger further processing provided that said response is not received from said peripheral device within said predetermined time period.

5. The method as recited in Claim 1 further comprising the step of triggering a default action in the event that said software handler fails to handle said identification notification message.

6. The method as recited in Claim 1 wherein said communications port is a serial communications port.

7. The method as recited in Claim 1 wherein said step c) comprises the step of examining a device sense pin of said communications port to determine the voltage thereon.

8. The method as recited in Claim 1 wherein said compliant peripheral class comprises RS-232 peripherals.

9. The method as recited in Claim 1 wherein said inquiry comprises an ASCII "ATI" command.

10. The method as recited in Claim 1 wherein said computer system is a personal digital assistant (PDA).

11. A computer system capable of identifying a peripheral device detachably coupled thereto, said computer system comprising:

a processor;

a memory coupled to said processor; and

a communications port coupled to said processor, said communications port for receiving an interrupt from said peripheral device coupled thereto; said processor for posting an interrupt notification message to alert a notification handler running on said computer system in response to said interrupt; said processor also for opening said communications port provided that said interrupt is indicative of a compliant peripheral class and said communications port is inactive; said processor further for sending an inquiry to said peripheral device via said communications port; said processor also for monitoring to receive a response from said peripheral device via said communications port within a predetermined time period; and said processor further for posting an identification notification message based on data in said response, wherein said data can be used to classify said peripheral device and wherein a software handler registered with said operating system can handle said identification notification message upon receipt thereof provided that said response is received from said peripheral device within said predetermined time period.

12. The computer system as recited in Claim 11 wherein said processor is further for posting a non-compliance notification message to trigger exception processing on said computer system provided that said interrupt is not indicative of said compliant peripheral class.

13. The computer system as recited in Claim 11 wherein said processor is further for posting a port-in-use notification message to trigger further processing provided that said interrupt is indicative of said compliant peripheral class and said communications port is already open.

14. The computer system as recited in Claim 11 wherein said processor is further for posting a no-response notification message to trigger further processing provided that said response is not received from said peripheral device within said predetermined time period.

15. The computer system as recited in Claim 11 wherein said processor is further for triggering a default action in the event that said software handler fails to handle said identification notification message.

16. The computer system as recited in Claim 11 wherein said communications port is a serial communications port.

17. The computer system as recited in Claim 11 wherein said processor is also for examining a device sense pin of said communications port to determine the voltage thereon.

18. The computer system as recited in Claim 11 wherein said compliant peripheral class comprises RS-232 peripherals.

19. The computer system as recited in Claim 11 wherein said inquiry comprises an ASCII "ATI" command.

20. The computer system as recited in Claim 11 wherein said computer system is a personal digital assistant (PDA).

21. A method for identifying a peripheral device detachably coupled to a computer system, said method comprising the steps of:

a) receiving an interrupt from said peripheral device, said peripheral device being coupled to a communications port of said computer system;

b) responsive to said interrupt, posting an interrupt notification message to alert a high priority device-specific notification handler, said high priority device-specific notification handler having a higher priority than a system interrupt notification handler and being capable of directly servicing an interrupt from said peripheral device without involving said system interrupt notification handler; and

c) servicing said interrupt notification message upon receipt thereof.

22. The method as recited in Claim 21 wherein said computer system has a plurality of said high priority device-specific notification handlers installed thereon.

23. The method as recited in Claim 21 further comprising the step of triggering a default action in the event that said high priority device-specific notification handler fails to handle said interrupt notification message.

24. The method as recited in Claim 21 wherein said communications port is a serial communications port.

25. The method as recited in Claim 21 wherein said peripheral device is a RS-232 peripheral device.

26. The method as recited in Claim 21 wherein said computer system is a personal digital assistant (PDA).